

REMARKS

Reconsideration of the present application in view of the above amendment and the following remarks is respectfully requested.

Claim 1 is amended, support for this amendment can be found on page 11, lines 10-13. No new matter is introduced by way of this amendment.

The Examiner has rejected claims 3, 5, 7, 9 and 11 under 35 U.S.C. §112, first paragraph as failing to comply with the enablement requirement. Particularly with respect to claim 3, the Examiner is of the opinion that the first and second recording layers are separated by layers 22, 21, 12 and 34. The Examiner therefore concludes that it is impossible to mix the primary elements in each recording layer upon irradiation of a laser beam.

Applicants respectfully traverse this ground of rejection. Claim 3 is directed to a device having a plurality of recording layers. Each recording layer comprises at least two recording films positioned in the vicinity of each other. The elements to be mixed during irradiation are contained in respective recording films within the same recording layer. Moreover, the application provides detailed disclosure by way of explanation as well as working examples to teach how to make and use the above structure. Accordingly, Applicants respectfully request that, claim 3 is in full compliance with §112, first paragraph and this ground of rejection be withdrawn. Likewise, because claims 5, 7, 9 and 11 are rejected for their dependence from claim 3, in view of the above remarks, they are also fully enabled.

The Examiner further rejects claims 1-9 under 35 U.S.C. §103(a) over U.S. Patent No. 6,636,477 to Miyamoto *et al.* (hereafter, "Miyamoto") in view of U.S. Patent No. 6,788,635 to Aratani (hereafter "Aratani").

In particular, the Examiner states that Miyamoto discloses an optical recording medium including two recording layers 3, 3' and heat sink layer 5 included in the recording layer 3 and containing Ag as a primary component. The Examiner further states that Aratani shows an optical recording medium wherein C is used as an additive in Ag. In asserting obviousness, the Examiner equates the heat sink layers of Miyamoto to the reflective layers of claim 1 of the present application.

In the optical recording medium of Miyamoto, the under protective layer 2', the recording layer 3', the heat sink control layer 4' and the heat sink layer 5' are laminated in reverse order from the under protective layer 2, the recording layer 3, the heat sink control layer 4 and the heat sink layer 5, and the optical recording medium is constituted so that when data are to be recorded in the recording layer 3' and data recorded in the recording layer 3' are to be reproduced, a laser beam is projected onto the recording layer 3' from the side of the substrate 1'. In a optical medium constructed in this fashion, the laser beam reaches the recording layer 3' before reaching the heat sink layer 5. Similarly, when data are to be recorded in the recording layer 3 and data recorded in the recording layer 3 are to be reproduced, the laser beam is projected onto the recording layer 3 from the side of the substrate 1 located opposite to the substrate 1'.

Therefore, in the optical recording medium disclosed in Miyamoto, the light beam is projected onto the optical recording medium from the side of the substrates 1 or 1', reaching the recording layers (3 or 3') before reaching the heat sink layers (5 or 5').

Contrary to Miyamoto, claim 1 of present invention is directed to a recording medium constituted in such a manner that a laser beam is necessarily projected onto the optical recording medium from the side of the light transmission layer and the laser beam is never projected from the side of the substrate. The structure as recited in claims allows for a laser beam to project onto a farthest recording layer (*see, e.g.*, reference 30 of Figure 1) via a reflective layer (*see, e.g.*, reference number 21 of Figure 1) of a recording layer that is closer to the light transmission layer.

In particular, claim 1 is directed to a plurality of recording layers, wherein data are to be recorded in or data are to be reproduced from the farthest recording layer (hereinafter referred to as the "L1 layer") from the light incidence plane, and at least one recording layer other than the farthest recording layer (hereinafter referred to as the "L0 layer") includes a reflective layer. Therefore, in order to record data in the L1 layer and reproduce data from the L1 layer in a desired manner, it is necessary for the laser beam to project through the reflective layer before it reaches the farthest recording layer where data is to be recorded or reproduced.

However, as the reflective film included in the L0 layer is made thinner, heat generated in the recording film included in the L0 layer by the laser beam is not readily radiated. On the other hand, as the reflective film included in the L0 layer is made thicker, the light transmittance of the L0 layer is inevitably lowered. It is therefore necessary to form a reflective film of a material having a high light transmittance and a high thermal conductivity in order to simultaneously improve the recording characteristic and the reproducing characteristic of the L0 layer and those of the L1 layer and Ag was known as a typical material having a high light transmittance and a high thermal conductivity.

However, when the reflective film (*see, e.g.*, 21 of Figure 1) included in the L0 layer is formed of Ag, since Ag corrodes easily, the storage reliability of the optical recording medium is low. Applicants have discovered that when at least one recording layer other than the farthest recording layer from the light incidence plane included a reflective film containing Ag as a primary component and C as an additive, it was possible to improve the light transmittance and the thermal conductivity of the reflective film included in the L0 layer while preventing the reflective film from being corroded and it was therefore possible to improve recording characteristics and reproducing characteristic of the respective recording layers and improve the storage reliability of the optical recording medium. Moreover, no separate heat sink such as the one described in Miyamoto is necessary.

Accordingly, Miyamoto does not teach or suggest the features as recited in claim 1, particularly with respect to the position of a reflective layer. Aratani does not cure this deficiency. Applicants therefore respectfully request that this rejection be withdrawn.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

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All of the claims remaining in the application are now clearly allowable.
Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
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